

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for receiving broadcast satellite transmissions in one of an air-based, a land-based, and a sea-based vehicle, said system comprising:

an orientation system for determining at least a first orientation of the vehicle in three dimensions;

a controller in communication with said orientation system, said controller adapted to receive first orientation data corresponding to said first orientation of the vehicle and to receive first location data corresponding to a first location of the vehicle relative to a predetermined positioning system, wherein said controller utilizes said first orientation data and said first location data to determine first position control data;

a one dimensionally electronically-pointable antenna mounted upon a motorized turntable to provide two-dimensional pointing and adapted to receive said first position control data from said controller, wherein said motorized turntable is substantially flat and said one dimensionally electronically-pointable antenna is conformally mounted to said motorized turntable, wherein said motorized turntable is operable to be conformally mounted to a substantially flat surface of said vehicle, wherein said one-dimensionally electronically-pointable antenna is pointable in two-dimensions in open-loop operation in accordance with said first position control data to receive a first direct broadcast satellite signal from a first satellite having a known location relative to said predetermined positioning system;

a direct broadcast satellite receiver adapted to process a first radio frequency signal corresponding to said first direct broadcast satellite signal

received by said electronically-pointable antenna to produce at least one of the first audio output, a first video output, and a first data output;

a closed-loop feedback system adapted to provide at least one output signal wherein said one dimensionally electronically pointable antenna is pointable in two-dimensions utilizing said at least one output signal in closed-loop operation to receive said first direct broadcast satellite signal; and,

a signal lock for automatically activating and deactivating said closed-loop feedback system in response to said first direct broadcast satellite signal received by said one dimensionally electronically-pointable antenna, wherein said system is in open-loop operation when said closed-loop feedback system is deactivated and in closed-loop operation when said closed-loop feedback system is activated.

2. (Cancelled)

3. (Currently Amended) A system, as claimed in Claim 21, wherein said at least one output signal controls a rotational orientation of said one-dimensionally electronically-pointable antenna on said turntable.

4. (Previously Presented) A system, as claimed in Claim 1, wherein said one dimensionally electronically-pointable antenna comprises one of a phased array antenna and a plasma grating antenna.

5. (Previously Presented) A system, as claimed in Claim 1, wherein said one dimensionally electronically-pointable antenna is substantially flat within a plane and is adapted to electronically point at a look-angle relative to said plane.

6. (Original) A direct broadcast satellite system, as claimed in Claim 1, wherein said orientation system comprises a first electronic compass and tilt-sensor.

7. (Original) A direct broadcast satellite system, as claimed in Claim 1, wherein said orientation system comprises a first solid-state electromagnetic field sensor and a first fluid-field tilt-sensor adapted to provide said first orientation data of the vehicle.

8. (Previously Presented) A direct broadcast satellite system, as claimed in Claim 1, wherein said controller comprises an open-loop control system adapted to process said first location data, said first location data received from a Global Positioning System receiver in communication with said controller, said first orientation data from said controller, and position and signal characteristic data corresponding to a first satellite to determine said first position control data comprising at least a first coarse look-angle position data to point said one dimensionally electronically-pointable antenna.

9. (Previously Presented) A direct broadcast satellite system, as claimed in Claim 8, wherein said signal lock detector is adapted for at least detecting a first loss of said first direct broadcast satellite signal to activate said open-loop operation.

10. (Previously Presented) A direct broadcast satellite system, as claimed in Claim 9, wherein said closed-loop feedback system is adapted for controlling a rotational orientation of said turntable and a look-angle of said electronically-pointable antenna.

11. - 16. (Cancelled)

17. (Currently Amended) A system for receiving satellite transmissions in a vehicle, said system comprising:

a one dimensionally electronically-pointable antenna mounted to a motorized turntable to provide two-dimensional pointing, wherein said one dimensionally electronically-pointable antenna mounted upon said motorized

turntable is substantially flat and operable to be conformally mounted to a surface of said vehicle;

an open-loop control system adapted to point said electronically-pointable antenna at a satellite, wherein said open-loop control system processes orientation data relative to a predetermined positioning system of a vehicle provided by a vehicle orientation determination system, wherein said open-loop control system processes location data relative to said predetermined positioning system of said vehicle provided by a vehicle location determination system, wherein said open-loop control system processes satellite position data for said satellite relative to said predetermined positioning system based on position data of said satellite stored in a first memory, wherein said open-loop control system is adapted for controlling a rotational orientation of said turntable and a look-angle of said electronically-pointable antenna based on said processing of vehicle orientation, vehicle location, and satellite position data;

a closed-loop control system adapted to point said electronically-pointable antenna at said satellite, wherein said closed-loop control system is adapted for controlling a rotational orientation of said turntable and a look-angle of said electronically-pointable antenna based on a first received satellite signal characteristic, and wherein said first received satellite signal characteristic is signal strength;

a signal lock for automatically switching between said open-loop and closed-loop control systems in response to said first received satellite signal characteristic; and

a direct broadcast receiver for processing a signal from said satellite to produce at least one of the first audio output, a first video output, and a first data output.

18. – 19. (Cancelled)

20. (Currently Amended) A system for receiving satellite transmissions in a vehicle as claimed in Claim ~~49~~17, wherein said vehicle orientation determination system comprises an electronic compass and tilt sensor adapted to provide said orientation data.

21. (Currently Amended) A system for receiving satellite transmissions in a vehicle as claimed in Claim ~~49~~17, wherein said vehicle orientation determination system comprises a solid-state electromagnetic field sensor and a fluid-filled tilt-sensor adapted to provide said orientation data.

22. (Currently Amended) A system for receiving satellite transmissions in a vehicle as claimed in Claim ~~49~~17, wherein said vehicle location determination system comprises a Global Positioning System receiver to provide said location data.

23. (Currently Amended) A system for receiving satellite transmissions in a vehicle as claimed in Claim ~~49~~17, wherein said closed-loop control system is capable of controlling said rotational orientation of said turntable and said look-angle of said electronically-pointable antenna simultaneously.

24. (Currently Amended) A system for receiving satellite transmissions in a vehicle as claimed in Claim ~~49~~17, wherein said open-loop control system is capable of controlling said rotational orientation of said turntable and said look-angle of said electronically-pointable antenna simultaneously.